

AUG 16 2006

Docket No. 020293

Serial No. 10/632,637

## REMARKS/ARGUMENTS

Claims 1-69 are in this application. Claim 15 has been amended to clarify claim scope. No new matter has been added. In the Office Action mailed on May 16, 2006, the Examiner rejected claims 1-9, 11, 15-19, 24-31, 35-38, 41-58, and 61-69 pursuant to 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Pub. No. 2003/0069033 A1 filed October 4, 2001 by Edge et al. (Edge). The examiner rejected claims 10, 14, and 32 pursuant to 35 U.S.C. § 103(a) as being anticipated by Edge in view of U.S. Patent No. 6,707,422, filed November 13, 2001, and issued to Sheynblat et al. (Sheynblat). The examiner rejected claims 12-13 and 33-34 pursuant to 35 U.S.C. § 103(a) as being anticipated by Edge in view of U.S. Patent Application No. 2001/0026241 A1, filed March 30, 2001, by Tamura et al. (Tamura). The examiner rejected claims 20-23 pursuant to 35 U.S.C. § 103(a) as being anticipated by Edge in view of U.S. Patent No. 6,847,826 B1, filed November 3, 2000, and issued to Wesby et al. (Wesby). The Examiner rejected claims 39-40 and 59-60 pursuant to 35 U.S.C. § 103(a) as being obvious over Edge. Applicant respectfully traverses the examiner's rejections.

35 U.S.C. §102(e): Edge

The Examiner rejected claims 1-9, 11, 15-19, 24-31, 35-38, 41-58, and 61-69 pursuant to 35 U.S.C. § 102(e) as being anticipated by Edge. The pertinent independent claims are claims 1, 15, 24, 38, 47, 50, 58, 61 and 64. Applicant respectfully traverses the Examiner's rejections for the reasons detailed below.

Claim 1 includes the feature of **determining a position solution for a mobile unit as a function of received signals using a synchronization bias** that defines a difference between a system time for a satellite navigation system and a system time for a wireless communication system. Claim 15 includes the feature of **determining a position solution for a mobile unit as a function of synchronization bias data**. Claim 24 includes the feature of a processor to **determine a position solution for a mobile unit as a function of received signals using a synchronization bias** that defines a difference between a system time for a satellite navigation system and a system time for a wireless communication system. Claim 38 includes the feature of a device to receive synchronization bias data from a server, and

**Docket No. 020293****Serial No. 10/632,637**

**determine a position solution as a function of the synchronization bias data and signals received from a satellite navigation system and a wireless communication system. Claim 47 includes the features of receiving signals at a device from a plurality of systems having synchronous system times, and determining a position solution for the device as a function of the signals and a synchronization bias that defines a difference between the system times. Claim 50 includes the feature of a computer-readable medium comprising instructions to cause a processor to determine a position solution for a mobile unit as a function of signals received from a satellite navigation system, signals received from a wireless communication system, and a synchronization bias that defines a difference between system times for the satellite navigation system and the wireless communication system. Claim 58 includes the feature of a computer-readable medium comprising a data structure to store one or more synchronization biases for computing position solutions for one or more mobile units, where each of the synchronization biases defines a difference between a system time for a satellite navigation system and a system time for a wireless communication system. Claim 61 includes the features of receiving sets of position related measurements for a device, the measurements of each of the sets having a common bias with respect to the measurements of the other set, and determining a position solution for the device as a function of the measurements and the common bias. Claim 64 includes the features of receiving sets of position related measurements for a device from a plurality of systems, determining different system times for each of the systems, and determining a position solution for the device as a function of the measurements and the system times. These features are neither taught nor disclosed by Edge.**

Applicant respectfully submits that Edge does not enable or suggest a method for determining a position solution for a mobile unit as a function of synchronization time bias data between a wireless communication system and a satellite system. Rather, Edge teaches using synchronization time bias data to provide precision network time-keeping through the capture of GPS timing information at mobile units so that Time Division Multiple Access (TDMA) devices can regulate and control the frames, multiframe, superframes and hyper frames in each of their 200 KHz physical channels. (See paragraphs 51-60.) While Edge discloses collecting time bias information similar to that of Applicant, Edge teaches away from Applicant's claimed invention by using the information to "provide precision

**Docket No. 020293****Serial No. 10/632,637**

timekeeping data to devices in the network" (Paragraph 69), rather than enabling position solutions for the devices.

Edge further discloses the use of synchronization time bias data for enhancing standard time maintenance techniques for TDMA, GSM and other systems that require internal frequency source accuracies better than 0.1 ppm to precisely time the arrival of base station transmissions. Edge uses the synchronization time bias data to reduce the need to synchronize each mobile unit with the base station by monitoring synchronization bursts in order to support the physical channels where timing divergence of more than 2us can not be tolerated. (See paragraphs 70-72).

Applicant respectfully submits that each of the Examiner's statements in paragraph 2 of the Detailed Action are incorrect. As claimed by the Examiner, Edge does not disclose determining a position solution for a mobile unit as a function of received signals using a synchronization bias, determining a position solution for a mobile unit as a function of synchronization bias data, determining a position solution for a mobile unit as a function of received signals using a synchronization bias that defines a difference between a system time for a satellite navigation system and a system time for a wireless communication system, a device to receive synchronization bias data from a server and determine a position solution as a function of the synchronization bias data and signals received from a satellite navigation system and a wireless communication system, receiving signals at a device from a plurality of systems having synchronous system times and determining a position solution for the device as a function of the signals and a synchronization bias that defines a difference between the system times, determining a position solution for a mobile unit as a function of signals received from a satellite navigation system, signals received from a wireless communication system, and a synchronization bias that defines a difference between system times for the satellite navigation system and the wireless communication system, a computer-readable medium comprising a data structure to store one or more synchronization biases for computing position solutions for one or more mobile units, where each of the synchronization biases defines a difference between a system time for a satellite navigation system and a system time for a wireless communication system, receiving sets of position related measurements for a device, the measurements of each of the sets having a common bias with respect to the measurements of the other set, and determining a position solution for the device as a function of the measurements and the common bias, or receiving sets of position

**Docket No. 020293****Serial No. 10/632,637**

related measurements for a device from a plurality of systems, determining different system times for each of the systems, and determining a position solution for the device as a function of the measurements and the system times.

The only mentions of position location made by Edge refer vaguely to the well known requirement of accurate timing information to support positioning technologies without disclosing or enabling any method of applying synchronization time bias data to achieve a position solution. For example, paragraph 5 states that "accurate timing information is required by certain positioning technologies to support such applications and positioning requirements." Paragraph 10 states "The ensuing corrected time associations, which are now with respect to an absolute time source, may be used to support many applications including a number of geographical positioning methods". Paragraph 62 discloses that "In some embodiments, processing could be combined with the derivation of a GPS location estimate for the mobile unit which may also be needed to support some other location based service. Paragraphs 78 through 82 similarly suggest that the data collection of Edge could be used by positioning applications. Such hypothesis are known by anyone skilled in the art. Edge, however, fails to disclose or enable any method or application of synchronization time bias data to a determine a position solution for a device as a function of the data.

The limitations of independent claims 1, 15, 24, 38, 47, 50, 58, 61 and 64 are not found in Edge. Therefore, Applicant respectfully submits that claims 1, 15, 24, 38, 47, 50, 58, 61 and 64, and the claims dependent thereon (claims 2-14, 16-23, 25-37, 39-46, 48-49, 51-57, 59-60, 62-63 and 65-69), constitute patentable subject matter in view of Edge.

35 U.S.C. §103(a): Edge in View of Sheynblat

The examiner rejected claims 10, 14, and 32 pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over Edge in view of Sheynblat. The pertinent independent claims are claims 1 and 24. In view of the arguments detailed above with respect to independent claims 1 and 24, Applicant submits that dependent claims 10, 14 and 22 constitute patentable subject matter in view of the cited reference. Applicant further respectfully submits that the Examiner has not provided a proper *prima facie* case of obviousness because there is no suggestion or teaching to combine Edge with Sheynblat in a manner that would render claims 10, 14 and 24 unpatentable.

Docket No. 020293

Serial No. 10/632,637

35 U.S.C. §103(a): Edge in view of Tamura

The examiner rejected claims 12-13 and 33-34 pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over Edge in view of Tamura. The pertinent independent claims are claims 1 and 24. In view of the arguments detailed above with respect to independent claims 1 and 24, Applicant submits that dependent claims 12-13 and 33-34 constitute patentable subject matter in view of the cited reference. Applicant further respectfully submits that the Examiner has not provided a proper *prima facie* case of obviousness because there is no suggestion or teaching to combine Edge with Tamura in a manner that would render claims 12-13 and 33-34 unpatentable.

35 U.S.C. §103(a): Edge in View of Wesby

The examiner rejected claims 20-23 pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over Edge in view of Wesby. The pertinent independent claim is claim 15. In view of the arguments detailed above with respect to independent claim 15, Applicant submits that dependent claims 20-23 constitute patentable subject matter in view of the cited reference. Applicant further respectfully submits that the Examiner has not provided a proper *prima facie* case of obviousness because there is no suggestion or teaching to combine Edge with Wesby in a manner that would render claims 20-23 unpatentable.

35 U.S.C. §103(a): Edge

The examiner rejected claims 39-40 and 59-60 pursuant to 35 U.S.C. § 103(a) as allegedly being unpatentable over Edge. The pertinent independent claims are claims 15 and 58. In view of the arguments detailed above with respect to independent claims 15 and 58, Applicant submits that dependent claims 39-40 and 59-60 constitute patentable subject matter in view of the cited reference.

Applicant therefore respectfully requests that a timely Notice of Allowance be issued in this case.

Docket No. 020293

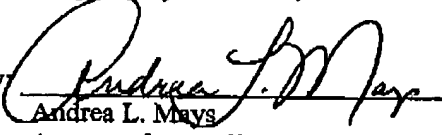
Serial No. 10/632,637

If there are any fees due in connection with the filing of the response, please charge the fees to our Deposit Account No. 17-0026. If a fee is required for an extension of time under 37 CFR 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: August 16, 2006

QUALCOMM Incorporated  
5775 Morehouse Drive  
San Diego, California 92121-2779  
Telephone: (858) 651-8546  
Facsimile: (858) 658-2502

Respectfully submitted,

By   
Andrea L. Mays  
Attorney for Applicant  
Registration No. 43,721